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ABSTRACT

This booklet outlines facts that should be considered during a new employee's initial weeks with a firm, in this case a clothing manufacturer; particular emphasis is placed on the principles of good selection and training. Various sources are also given from which to get help in implementing the basic principles described. The following points are made: (1) Recruitment involves advertising a firm's advantageous aspects; (2) Good selection techniques are important as short-term employees are expensive; (3) Objectives of training include reducing the time taken to learn a new job, achieving, maintaining, or improving quality standards, and introducing or standardizing correct methods. Following good practices in selection and training will reduce an employer's overall cost per employee. (CK)

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RECRUITMENT SELECTION AND TRAINING

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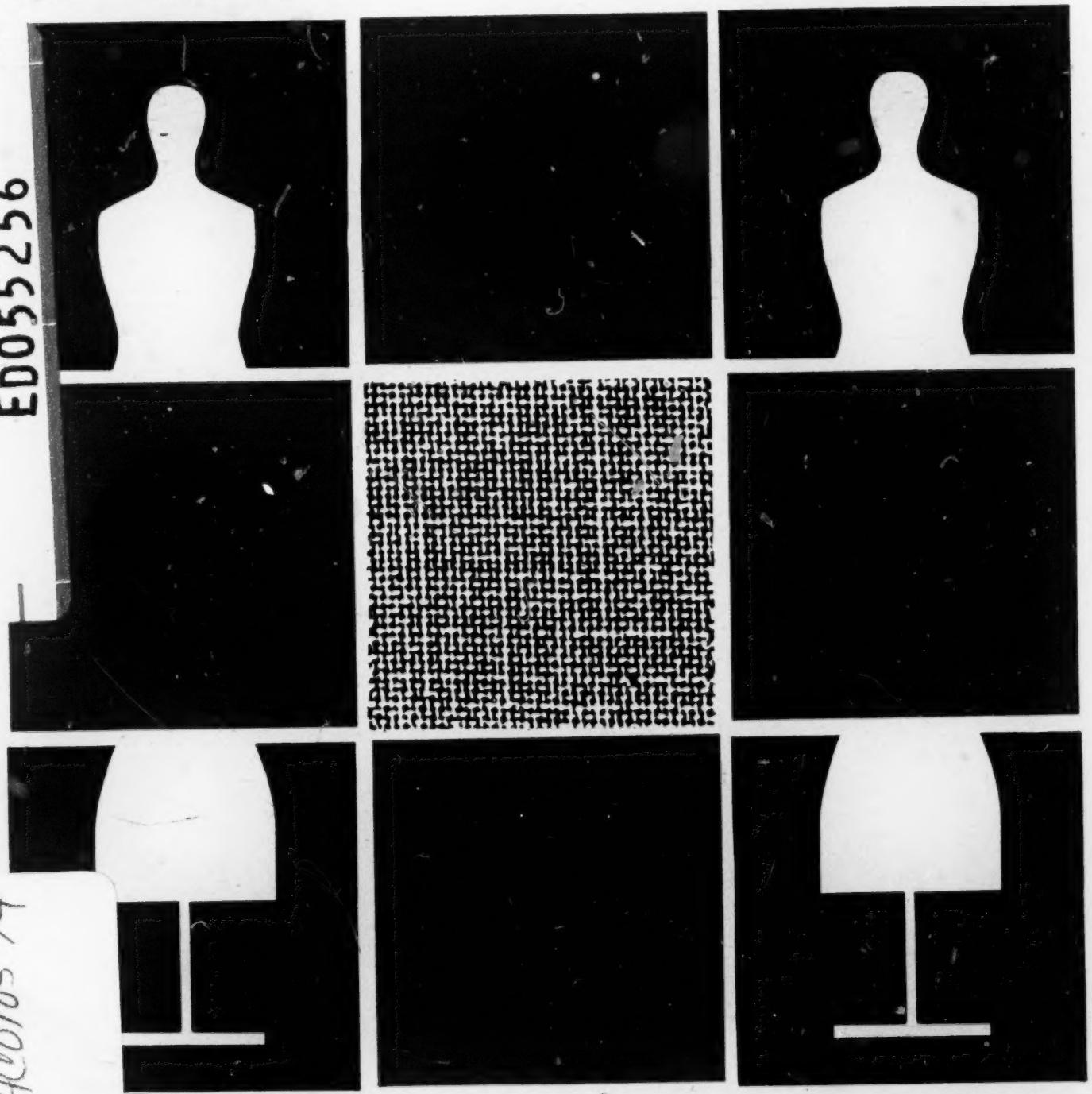

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NATIONAL ECONOMIC DEVELOPMENT OFFICE

RECRUITMENT SELECTION AND TRAINING

A report by the manpower working party of the Economic Development Committee for the Clothing Industry

The Economic Development Committees are composed of representatives of the three parties involved in industrial and economic development—management, trade unions and government. Their secretariat is provided by the National Economic Development Office, which is an independent, publicly financed body. This report has been prepared for publication by the manpower working party of the EDC *for Clothing which is solely responsible for its contents.*

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Acknowledgement

In preparing this booklet the manpower working party of the Clothing EDC has drawn on the knowledge and practices of many firms and on information contained in various publications on this subject. The working party is grateful for the assistance it has thus received. It is also pleased to acknowledge its indebtedness to the publications mentioned below and to recommend these to readers wishing to extend their knowledge.

The Skills of Interviewing	E Sidney and M Brown Tavistock Institute publication
Selection and Placements	Institute of Personnel Management
Interviewing for Selection	National Institute of Industrial Psychology
Selection and Training of Basic Machinists	Overall Manufacturers Association
Training for Skill in Manual Operations	Douglas Seymour Alec Rodger
Paper No 1 *Seven Point Plan*	National Institute of Industrial Psychology
Training in the Clothing Industry	Eunice Belbin and Robert Sergean
Principles of Supervisor Training	W R Carslake The Clothing Institute
Training Sewing Machinists	Dr Isabel Blain The Clothing Institute
Training of Sewing Machinists—The Responsibilities of Management	Dr Isabel Blain and others The Clothing Institute
Survey of Training Needs	Committee on Training for the Clothing Industry

1 Why is manpower so important?

This booklet outlines the facts which should be considered during the critical period of a new employee's 'life' with your firm, with particular emphasis on the principles of good selection and training. It is hoped that it will be of help to all those engaged in clothing manufacture.

The clothing industry has in the past depended on a plentiful supply of labour but as every clothing factory manager knows, this is no longer available and competition with industries which probably pay relatively higher wages for less skilled work is also increasing. Over the period 1961-66 the industry's labour force has decreased by nearly 40,000 at an average annual decline of 1·8 per cent (see Table 1). Yet the public both at home and abroad is buying more clothes and requiring greater variety and no manager can, therefore, afford to neglect the selection and training of his labour force.

It has been calculated that if the British clothing industry is to meet the rising demand for clothes with a declining labour force, everybody in the industry must produce about 3 per cent more each year. Faster machines, new materials and methods, and improved ancillary equipment and handling techniques have all helped to increase productivity, and will continue to do so; but the improved use of available manpower is the key to increased productivity and increased profits today.

Table 1 Total number of employees in the clothing industry by industry sector 1961-1966 (000's)

Industry sector	*May* 1961	*June* 1962	*June* 1963	*June* 1964	*June* 1965	*June* 1966	*Average annual change %*
Weatherproof outerwear	31·0	30·6	30·3	29·9	28·7	29·9	—1.1
Men's and boys' tailored outerwear	133·6	133·6	126·5	121·0	118·9	118·8	—2·8
Women's and girls' tailored outerwear	69·8	67·6	69·3	68·1	67·4	63·6	—1·4
Overalls, men's shirts, underwear *etc*	49·9	48·3	47·9	46·7	44·4	44·1	—2·5
Dresses, lingerie, infants' wear *etc*	115·5	117·4	114·3	109·5	112·4	111·4	—1·0
Hats, caps and millinery	14·7	14·1	13·7	13·1	12·2	11·7	—4·5
Other dress industries	42·5	43·7	42·5	41·5	41·7	40·8	—1·0
Total	457·0	455·3	444·5	429·8	425·7	420·3	—1·8

Source: Department of Employment and Productivity.

Note: These figures cover employed and unemployed.

In practical terms this means that every firm in the industry, whatever its size, must recruit and select the right people, train them effectively and keep them for as long as possible. Firms which fail to do this will be unable to compete with those which succeed. To do this may involve some expenditure and the object of this booklet is to demonstrate that this is money well spent, and that any short term costs are more than offset by the long term return of a more stable, contented and productive labour force.

Female machinists comprise the bulk of the labour force and we have concerned ourselves primarily with the machinist. However, the principles covered apply to all your employees of either sex. This booklet sets out the methods of selection and training which each firm can follow up and various sources are given from which you can get help to implement the basic principles described. The booklet should be studied whether you are the managing director of a one-man family business, a line manager in a medium sized firm, or a production or training supervisor. It cannot be emphasised too strongly that the ideas discussed here are not the exclusive concern of personnel specialists; they are of vital importance to everyone at every level, and only if they are accepted by everyone in the firm will they be successfully applied. Remember that the object of systematic selection and training is to lower your labour turnover, improve the morale in your factory, and increase your profits through improved productivity.

2 Recruitment

A total of 73 per cent of the clothing industry's labour force is composed of women, and the majority of new entrants are recruited from the ranks of school leavers. A recent survey by the Department of Employment and Productivity (DEP) showed that of all girls under 18 entering a job in manufacturing for the first time, 22·4 per cent entered the clothing industry. However, over the period 1960–1966, only 12·2 per cent of the total female labour force in manufacturing industry was in clothing. These figures demonstrate that the industry relies heavily on school leavers as a source of labour, that it is probably getting its fair share of school leavers, but it has not been very successful at keeping them. The prospective raising of the school leaving age and the general improvement in educational standards will intensify competition for recruits from this source and make it increasingly difficult to attract school leavers of the right calibre. Many clothing firms are already experimenting with alternative sources of recruitment—a greater proportion of male machinists than has been traditional, younger married women (who may require provision of child-care facilities and many of whom will be part-time employees) and older married women (who may require different training from the school leaver). These additional sources should not be overlooked provided it is recognised that special techniques of recruitment and training must be applied to this category of worker.

Every firm has its established methods of finding labour, and the following list of sources is given to enable you to review your methods from time to time. As one manager of a clothing firm put it 'Recruitment is like selling a product. You have to change your promotion methods regularly so that you don't become stale'. Remember when you are trying to obtain new employees, you are trying to 'sell' your firm in competition with other firms.

Schools

Employers can help to give the industry an attractive image in the eyes of school leavers by visiting local schools to explain the opportunities which the clothing industry can offer. Visits by pupils and teachers to your factory can help to break down the natural fear of transition from school to industrial life. Your local youth employment officer will be glad to help in arranging these visits. The teacher and the local education officer can be valuable allies but you may find that they do not encourage their pupils to come to the industry, unless they are fully aware of the opportunities you offer. At least one clothing firm has arranged the secondment of teachers to its factory for 2–3 weeks, and the experiment has been an unqualified success. Careers conventions have also been held successfully in some areas, and these provide the opportunity for teachers to meet groups of local employers, and to discuss directly with them the opportunities available to their pupils.

Youth employment offices

These are a vital element in the recruitment process, as youth employment officers give vocational guidance and advice to the majority of school leavers

and are therefore well placed to tell these young people about opportunities in the clothing industry. In addition, many school leavers are found jobs by the youth employment service. You will make it easier for youth employment officers to select suitable applicants for interview if you give them full details of your requirements. They welcome invitations to visit factories and to see at first hand the jobs being done there; this helps them to assess the type of worker you need.

Employment exchanges

Your local exchange can help with the recruitment of adult workers. To obtain full value from this service your co-operation in giving full particulars of your requirements and the facilities you offer should be provided and this information kept up to date. Employment exchange officers are also glad to gain first hand knowledge of the work being carried out as a help in matching the persons available against the vacancies.

Advertising

Local and national press; public transport, cinemas. Advertisements should naturally point out the attractive features of the job, but it is important that they should be factual and not over-glamourise the job being offered. In this way you will avoid wasting time by interviewing and possibly engaging applicants who prove unsuitable. Advertising should be varied regularly.

Personal recommendation of present employees

This can be a valuable source of recruitment, but often it needs encouragement. Let it be known that you would like your employees to introduce their friends to your firm (*eg* by placing notices in your factory). The new employee will enjoy working with friends, and this provides an additional incentive to remain.

Casual callers

If you have a notice outside your factory advertising vacancies, make sure that it looks bright and appealing. Nothing looks worse than a weather-worn notice with your requirements barely legible; if it attracts anyone it will probably be someone you don't want. If you do use this method it is advisable if possible to keep a waiting list; recruits from other sources are usually more satisfactory.

Handbills

These can be useful sometimes in tapping a new source of labour—*eg*, married women or youths—and can be distributed through the letter box on local housing estates. In several areas, groups of clothing firms have joined together to produce attractive leaflets illustrating the different opportunities within one area for clothing industry work. The fact that the cost is shared enables the group to produce a more appealing brochure.

Naturally the way in which you recruit labour will depend on the type of labour you require, the relative costs and past successes. But if you are finding that it is more and more difficult to fill your vacancies, remember that variety and experiments in recruiting methods can be rewarding. It is the firm which is prepared to try out novel recruiting methods which often gets the best results.

3 Selection

Why select?

It must be admitted that no matter how imaginative your recruiting methods, you may still have difficulty in obtaining the labour you need. The supply of labour is short, and likely to continue so, and many firms feel that they have to take anyone they can get. So if you can't get enough people anyway, why bother to select from the few applicants you do get? The answer is that every new employee who is unsuitable or who stays only a short time and contributes no output is an expense which you cannot afford.

A new recruit costs you most during her first 2 or 3 weeks with you. As an example let us take two clothing firms, each with ten vacancies which need to be filled. Both succeed through an advertisement in attracting ten applicants. Firm A which practices some selection techniques, rejects three of the applicants, Firm B takes on all ten, but three leave after three weeks. Neither firm has systematic training, but relies on 'Sitting by Nellie'. The relative savings to Firm A who use selection methods are seen in Table 2 which illustrates the comparable costs of the two firms.

Table 2 Statement of comparable costs of recruitment selection and training £

	Firm A Limiting new entrants to seven only	*Firm B Accepting all ten applicants*
Recruitment costs (advertisement)	40	40
Selection costs	10	—
Make up pay for experienced operator's time spent in training*	12	18
Average wages of new recruits £6 per week for 3 weeks	126	180
Insurance, say £1 per week for 3 weeks	21	30
Material wastage	7	10
Total	**216**	**278**

*Firm A: ½ of experienced operator's wage of £12 per week.
Firm B: ½ " " " "

5

In this example lost production has been omitted because Firm B will not have had any effective output from the three recruits who left, so this equates with the three empty machines in Firm A. Firm A saved £62 in cash alone after spending £10 on selection and by *not* taking on the three girls who have left Firm B. For every £1 invested in selection, therefore, Firm A saved £6 4 0.

One clothing firm calculates that it has saved £2,500 a year since it improved its selection methods. A large multiple tailoring firm said that at one time it had taken on all applicants, and that apart from the labour turnover losses incurred, unsuitable girls could be lost sight of in the factory for several months, thereby slowing down production. A well known corsetry firm which introduced selection procedures only a few months ago claims that since then, no recruits have proved unsuitable, while yet another clothing firm calculates that before adopting some form of selection, the wastage rate of new recruits was 30 per cent higher than it is now.

To sum up, selection procedures cost very little and save immeasurably more than their cost by establishing a minimum standard and by reducing guesswork at the recruiting stage. This makes subsequent training easier and therefore more effective and less expensive. This in turn improves morale and helps to reduce labour turnover. Also new entrants are encouraged to feel that they are employed as individuals who matter sufficiently to have been chosen with care and interest. You will therefore see that it pays you to reject from beginning employees who are not going to be suitable, *even if this means that you are going to have to keep some of your vacancies unfilled.*

Selection methods

There is no magic formula by which you can ensure that you will only take on those employees who are going to prove wholly suitable to your needs. But good selection *minimises the risk of* employing a liability and increases your chances of getting who you want. It is not necessary to employ a specialist personnel officer in order to practise some form of selection, but it is important to have one person responsible for selecting all new employees. This may be the managing director, the production manager or manageress, or it may be the training supervisor, but *whoever carries out selection must be fully aware of what the firm's requirements are and what type of person is most likely to meet these requirements.*

The first step is to make out a job description covering the tasks and responsibilities of the job, and the abilities, qualifications and temperament required from the applicant. You might base your assessment on answers to the following questions:

(i) What physical characteristics (health, eyesight, age *etc*) are required?

(ii) What mechanical skills (manual dexterity, hand/eye/foot co-ordination, visual discrimination *etc*) are needed?

(iii) What educational and intelligence levels are required to absorb the training and subsequent work?

(iv) What sort of temperamental characteristics (patience, concentration, co-operation, teamwork) does the job demand?

If you can write down the answers to the questions for each job you will

already have eliminated much of the guesswork and will have built the foundations for improved selection. You should answer all these questions before you see any applicants: in this way you will be prepared for the next stage in selection —the interview.

The application form

The use of an application form is not always necessary, but it can save considerable time. The form should not be lengthy or complicated, but it should draw from the applicant enough basic information to determine her general background, abilities, intelligence and school or previous employment history. The use of an application form has three additional advantages; it forms a useful basis for the subsequent interview, it can be a valuable pre-selection screen and it can be used as the basic employment record. If an applicant who replies to an advertisement is not really serious about wanting the job, it is unlikely that she will go to the trouble of filling in an application form, however simple. On the other hand the form should not be so complicated as to deter the hesitant enquirer.

A sample application form is given in Appendix A.

The interview

The interview is the most important part of the selection process, for selection is basically the assessment of one individual by another in relation to a series of requirements. It might be argued that every firm 'sees' its new employees before engagement but what matters is not the fact of an interview but the conduct of it. For the ability to discover whether or not an applicant is suitable for a particular job lies with the skill of the interviewer. Some general hints on how to interview, and a suggested interview plan is included in Appendix B but how to interview is something which has to be learnt and you are strongly recommended to send whoever does your selection on one of the short courses on interviewing now available.

A list of organisations offering such courses is given in Appendix C.

Suggested interview plan

When you are interviewing applicants for any job, it is essential to ensure that you are working in the most favourable conditions possible. A quiet room, free from distractions and interruptions will enable you to concentrate on the candidate, and will put her at her ease. Do not keep your applicants waiting unnecessarily, for this will only create a poor impression of your own organising ability. You will find it helpful to call in the training supervisor or, if you do not employ one, the supervisor for whom the selected applicants will work. This is recommended as it is very important that every supervisor should feel a sense of commitment to those who are working under them and this is achieved by their being present right from the start.

Having made the applicant feel as relaxed as possible you will have before you certain information on the application form. This can be a valuable starting point for discussion. You will develop your own approach to the interview, and the plan in Appendix B is only one suggestion. It is important to keep a record of the interview, either on the application form or separately, as this is helpful in following up the employee's progress, assessing potential and testing the effectiveness of your selection methods.

The following general points about conducting an interview will be helpful:

(i) *Establish sympathy* One of the objects of an interview is to encourage the

applicant to relax and to talk freely about herself. Privacy is vital, and some general remarks help to put the applicant at ease. Once established, this rapport should be maintained throughout the interview. The interviewer should not interrupt, make judgements during the interview or show disapproval. If approval is shown it should be done with discretion.

(ii) *Let the applicant do the talking and don't halt the flow of information* The sequence of questions can be changed if necessary, but go back to any questions missed.

(iii) *Don't read the questions mechanically* Each applicant is an individual and should be treated as such. Ask the questions naturally and phrase them to suit the individual.

(iv) *Avoid leading questions* such as 'I suppose you left Browns to take a better job'. It is the applicant's real reason you want, not those suggested by the interviewer as being 'suitable' answers.

(v) *Avoid making moral judgements*, otherwise the applicant will respond by carefully phrasing the rest of her answers or by withholding information.

(vi) *Record answers briefly as received* No one can remember all the facts. This needs practice so that eye-contact is maintained with the applicant. The recording should not be obtrusive and interfere with communication.

(vii) *Check inconsistencies* They may be easily explained, but don't ignore them. They indicate a need to find out more.

(viii) *Handling resistance to personal questions* If you ask a personal question which might be resented, it is important to put it carefully. The best method is to forestall resistance by creating a climate in which the applicant will talk easily. Phrase the question so that the applicant is never made to 'lose face'. If the applicant resists a question, drop the question. Move on to something else, but return to the point later. Assure the candidate that similar questions are asked of all applicants and that all information is treated in strict confidence.

(ix) *Begin with the type of questions the applicant expects and which are non-emotive* Leave the more personal questions until later.

Aptitude tests

There are a large number of tests available which purport to identify specific skills in an individual. Evidence on their effectiveness varies and they are never an infallible guide to an individual's skills. However an eyesight test is an obvious precaution before employing someone. For this, many firms use a stereo viewer and stereoscopic cards and the candidate is required to state what she sees. If any deficiencies are revealed the applicant should be asked to visit an optician and the fault should be corrected before employment is offered.

Intelligence tests are also often used both to confirm that the girl has the basic intelligence for the job and as a means of finding her the most appropriate work. Such tests are often of the greatest use when selecting higher grade staff such as supervisors.

For the selection of sewing machine operators aptitude tests designed to reveal good co-ordination between hand and eye, nimble fingers and the ability to recognise shapes are particularly useful. Examples of such tests are given in Appendix D. It must be emphasised, though, that these tests give only a general indication of the aptitudes required but they will assist in eliminating those applicants who are obviously unsuited to the type of work you are offering.

You are advised to keep a record of test results on the interview form so that you will be able to build up experience of the effectiveness of the tests. An applicant should never be judged solely on her test results and the tests should

never be used to replace the interview. Used wisely aptitude tests can be helpful in corroborating the impression made at the interview; used carelessly they can provide you with misleading information and it should be stressed that selection tests do not by themselves produce better quality recruits.

4 Induction

You have now completed your interviews and tests and selected your new employees. During the course of the interview you will have conveyed to each applicant some impression of your firm and of the work she will be doing. Before operational training begins, it is very important that every new employee should be 'introduced' to your firm. Remember that everything may be familiar to you, but it may seem strange and perhaps frightening to the new employee, particularly if it is her first job. Frustration and uncertainty often cause employees to leave a firm, and a proper induction procedure overcomes this situation. While the provisions of the Contracts of Employment Act, which require you by law to inform all new employees of your conditions of engagement *ie* occupation, hours of work, holiday entitlement, rate of pay, sickness pay and pension arrangements, will have been complied with, induction is a personal matter and can best be dealt with in three stages.

(i) On the morning the new employee arrives, she should be welcomed by the manager as well as by the personnel officer if there is one. The points regarding conditions of employment, wages, hours, teabreaks, *etc*, should be covered again. This should be followed by the manager explaining about the company's products and the standards of product quality and personal conduct that all employees are expected to maintain. Points on safety and security should also be covered, as well as the purpose and pattern of the training scheme.

(ii) The instructress is probably the best person to show the new employee how to get to the canteen, the lavatories and cloakrooms and the nearest first aid point. Someone—a supervisor or even a recent new girl—should have the responsibility for helping her get her first canteen lunch.

(iii) The remainder of the induction should be planned into the first week or two of training.

This consists of talks from the person in charge of designing, materials, cutting, work study, machine maintenance, examining—and even selling. All these should be brief, simple and well illustrated with examples and associated visits.

Good induction costs little but it starts new employees off with your point of view and not with the attitudes they may pick up from the more cynical of the older employees.

5 Training

Why train?

Systematic selection will help you to obtain the best labour available and to avoid the expense of taking on unsuitable employees. But your selection efforts will be wasted if you do not take the trouble to train those you have chosen for the job you require them to do. What are the objects of operator training? Some of them can be summarised briefly as follows:

(i) To reduce the time taken to learn a new job and thus to reduce costs.

(ii) To achieve, maintain or improve quality standards, while attaining the necessary speed to meet production targets.

(iii) To introduce or standardise correct methods.

(iv) To enable new entrants to reach and improve on their basic wage as soon as possible.

(v) To attract new entrants in areas of labour shortage.

(vi) To increase the adaptability of labour.

(vii) To ensure better care of machines by operators.

(viii) To improve the worker's satisfaction and pride in the job.

(ix) To enhance the overall productivity of the factory.

Recent surveys on training in the clothing industry stress the need for improved training within the industry, and lay particular emphasis on the training of machinists, supervisors and mechanics, and also on the need for more training specialists and more instructors trained in the techniques of instruction. It is expected that in 1969 an industrial training board for the clothing industry will be set up under the terms of the Industrial Training Act. Under this, every firm in the industry will pay a training levy into a central fund, and only those firms with proper and approved training facilities will be able to claim back training grants. The amount of the levy and the definition of what constitutes 'proper training facilities' have to be determined, but the setting up of the board will mean that the obvious advantages of having a systematic training scheme must be weighed against the penalties of not having one.

If an additional incentive to train is required, it will certainly be found when the training board is established, but its prospective establishment should be considered purely as a catalyst for immediate return as there is a compulsion without this incentive. The size of the problem facing the industry provides one compelling incentive. The firms covered by the *Survey of Training Needs**

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* Prepared by The Industrial Training Service for the Committee on Training for the Clothing Industry.

considered they required to recruit 16,000 machinists to replace wastage over a 12 month period to maintain current levels of labour. All but 2,500 of these would require training and there was thought to be a need for an additional 4,500 machinists for anticipated expansion during the next twelve months. Thus approximately 18,000 machinists would need to be trained in some way. The sample covered by the 'Survey' represented 18 per cent of the industry's labour force, so that the number of people requiring training in the industry might be as high as 90,000 in a year.

Although discontinued in most progressive firms, the traditional method of 'training' in the clothing industry has long been by placing the new recruit with an experienced employee and letting her do the best she can. The experienced worker may be a good operator who has been doing the same job for many years, but this does not mean she is necessarily a good teacher and in any case she has her own work to get on with. The new employee is overwhelmed by the apparent speed and efficiency of her mentor which she feels can only have been achieved through years of practice; she may develop a sense of inferiority, and she certainly won't have the patience to wait for years before she can reach the earning level to which she aspires. The main disadvantage of this old fashioned method is that the trainee will not reach 100 per cent efficiency as rapidly as she could do, and will therefore continue to be partially unproductive by not working at her full capacity for many weeks, months or even permanently. At the same time, the experienced operator will be distracted by having to look after her pupil, and her output may drop. There is thus a double loss of output in your factory which represents a serious under-use of the limited resources available. It has been calculated that a school leaver who reaches 50 per cent efficiency after 12 weeks is costing a firm £40 a week in the subsidy payment to the trainee and the lost production and overhead recovery for the experienced operator. This loss will increase with adults and higher starting rates. A poorly trained employee is under constant pressure from her supervisor to improve and this can rapidly lead to low morale and dissatisfaction. The girl feels she is unlikely to earn as much as she hoped, she develops a feeling of inferiority as she sees other workers taking home larger pay-packets and it is not long before she decides to throw the whole thing up and take a comfortable job somewhere else where she earns a flat rate. Labour turnover rises, and you have to face either further recruitment or idle machines, disorganisation and diminished production, and lost business and profit.

Any systematic approach to training, however simple, is an advance on such an inadequate method. Systematic training is based on the fact that there is a certain body of knowledge and certain areas of skill—with associated positive attitudes towards the job—in every production operation. These skills are analysed, and arranged in an orderly sequence. This ensures that:

(i) All the knowledge required to do the job is included.

(ii) The skill in the job is broken down into easily absorbed portions which are then combined to take the trainee rapidly from simple to complex skills.

(iii) Better attitudes to the job are developed by including the fuller induction already mentioned and by the good initial impression the trainee gains from the more purposeful training.

On page 15 we discuss the principles involved in a systematic approach to training and suggest what is required before it can be implemented. The chief advantage of systematic training to the firm is the reduction in time it takes for a girl to reach 100 per cent efficiency. Figure 1, taken from a clothing factory, illustrates the 'learning curve' for these different training methods.

From the graph, we can compare the production of 10 new recruits after 20 weeks as follows:

(1) *Traditional:* 85 dz per week × 10= 850 dz per week.

(2) *Planned:* 170 dz per week × 10 = 1,700 dz per week.

The production of the new recruits has in fact doubled through the introduction of planned training. A large clothing firm which has recently introduced a properly organised training scheme has achieved the following results:

Before Average operator took 45 weeks to reach 90 per cent performance.

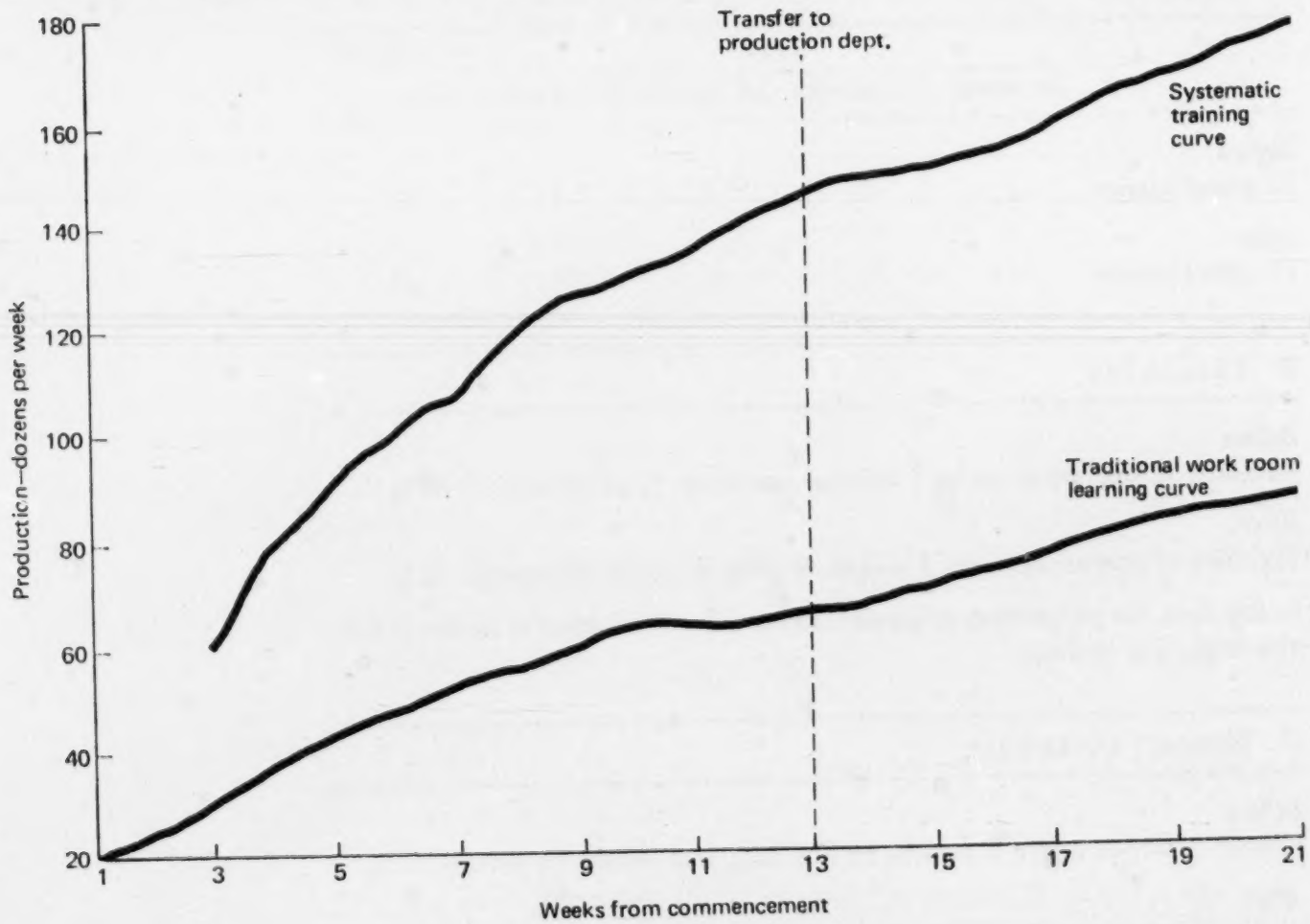
After Average operator takes 16 weeks to reach 90 per cent performance.

Reduction in training time of 64 per cent, with corresponding increase in profitable production and reduction in training subsidies.

Before 100 per cent sustained performance not reached until second year.

After It now takes operator 27 weeks to reach 100 per cent standard.

Figure 1 Comparative results of systematic training and traditional methods



This same firm estimates that the productivity of operators during their first year has on average increased by 38 per cent.

These results have only been obtained with effort and cost, and the pay-off of organised training requires perseverance. It would also be wrong to assume that the measure of improvement would be achieved by everybody. Individual circumstances and existing productivity standards will vary but the example demonstrates what can be done and indicates that there is a very substantial pay-off in production terms. More and more firms in the industry are re-examining their training arrangements faced with facts such as these.

Planned training can also influence labour turnover. If a girl feels that she has been trained for a skill which enables her to achieve a consistent and satisfying level of earnings, she will be less inclined to leave her job. She will have a greater sense of involvement in her work, and her interest is maintained with consequently less boredom and frustration. As with reduced learning times and higher productivity, the impact of planned training on labour turnover may not be immediate or spectacular. But the examples shown in Table 3, all of which come from clothing firms who have introduced this kind of training, are indicative of the effect on labour turnover.

Table 3

A OVERALLS

	Losses				*% retained*
	1st month	*1-3 months*	*3-6 months*	*6-12 months*	*after 1 year*
Before					
20 school leavers	1	3	5	1	50
After					
17 school leavers	1	—	1	2	76

B TAILORING

Before
Turnover of operatives under 3 months service as % of all leavers: 40%.

After
Turnover of operatives under 3 months service as % of all leavers: 32%.

In this firm, the proportion of leavers between 3 and 12 months service is now also beginning to drop.

C WOMEN'S OUTERWEAR

Before
Labour turnover under 6 months service 38% and within 12 months 62%.

After
Under 6 months service 12½% and within 12 months 27%.

If evidence is needed, these examples of actual experience should be sufficient to show that planned training does increase productivity, both by improved performance and increased enthusiasm, and can cut labour turnover dramatically.

The principles of planned training

There is no one training system which can be applied to every firm in the clothing industry. The industry is far too fragmented, the skills required too varied and the size range of firms too great for this to be possible. The fashion and seasonal requirements of many sections of the industry will also influence individual firm's requirements. None of these factors alters the principles, however, as the key to planned training is flexibility to suit the needs of the individual firm. There are a number fof training schemes available in published form and through consultants, which can be adapted and modified to suit your needs. The first step in introducing any form of training programme is to develop a job description for the jobs where training is required. This has already been discussed in general terms under 'Selection'. It is now important to break down the job into its separate operations, so that each process required is analysed. Only in this way is it possible to know what the trainee requires to be taught in order to reach an efficient level of performance. It is also an essential part of placing an employee in the right job after training. There are five broad principles on which any training scheme should be based. Following the objects listed on page 11, these principles show what you are aiming to teach a new trainee:

(i) To learn the use and control of a machine.

(ii) To learn a series of operations comprising a specific job or jobs.

(iii) To achieve dexterity in handling materials and garments.

(iv) To recognise the required quality.

(v) To build up stamina until a consistently high level of performance is achieved.

A planned training system must be built up around these five basic principles coupled to a detailed job analysis. This may take some time, but in doing it you will discover many ways in which existing methods can be improved. The methods of the best, as opposed to the average, operator should be studied, as this can have a bearing not only on the speed but also on the quality of the work. In a company making under-vests, the best work in hemming neck and armholes was done by girls who did not stop the machine or re-arrange the work but 'ran round in one' without stopping. This method of stitching and handling was accordingly incorporated in the training programme. Which jobs then are found to be particularly difficult? Stitching over a thick place without going off the line? Mitreing? Collar making? Stitching curves? Changing fabric? Which tasks are supervisors reluctant to give to anyone but an experienced machinist? Why?

These are the questions which should be examined, as the foundations of planned training involve a very close look at the work in your factory, built around the principles described above.

The practice of planned training

However large or small your firm, it must be emphasised that first the need must be recognised and then a special effort must be made by management to implement the training programme. Only if all managers in a firm are convinced of the need to improve their training processes will the full benefits be realised. For training cannot be seen in isolation; it must be geared to production needs. Training targets must be set and adhered to. There is no point in making the effort to improve your training through a planned programme if your production manager is going to take trainees away to meet production demands before training targets have been reached; or if the production supervisor is going to say 'well you had better forget all you've learned now that you have come here'. So the first point is to ensure that the principles of planned training are accepted as beneficial by everyone in your firm.

It is important that one person in the firm should be nominated to be responsible for training. Whether or not this becomes a full time responsibility depends on the size of your firm and the scope of your training programme. A large firm will almost certainly need to employ a full time training officer* and several training supervisors. A smaller firm which does not feel that the salary of a full time training officer is justified, but nevertheless requires advice and help, would be well advised to consider joining with other firms in the area to run group training schemes for which grants are available from the DEP. Some clothing firms have obtained the assistance of local technical colleges in running joint training schemes; if you are a small firm with correspondingly few trainees you as manager may decide to draw up the initial framework and then delegate the implementation to a supervisor. Whatever course you adopt, the appointment of a responsible person is in itself not sufficient. He or she should have full authority for the training operation and should be answerable to the senior executive of the company whether principal, managing director or general manager. They should not be allowed to begin operations until adequately trained themselves in the techniques of a training operation. It is completely inadequate to appoint anyone, however good an employee, until they have been properly prepared for their training responsibilities. A number of organisations run courses for training personnel, and a list of these is given in Appendix E.

To assist you in deciding how to tackle your training problem, you should first answer the following questions:

(i) What is my anticipated overall work load *ie* sales: production?

(ii) How many people am I likely to need to train in a year to allow for labour wastage and to meet production demand?

(iii) What are they to be trained for?

(iv) How can this training be carried out swiftly and effectively?

(v) What will be the costs and the return?

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*The Department of Employment and Productivity pays a grant of 50 per cent of the tuition fees to firms in industries not yet covered by training boards who send staff to approved introductory courses for training officers. Almost all boards already established pay generous grants both for the training of training staff and for their subsequent employment.

Two types of systematic training are used for machinists in the clothing industry. The first is the Soundwell Scheme, which was originally developed for the footwear industry at the Soundwell Technical College in Bristol. This is a method of teaching a girl to use a sewing machine at maximum efficiency by means of graded exercises. Details are available from the Soundwell College, and from a number of other technical colleges throughout the country (Appendix F). The Soundwell Scheme covers the first of the training principles and is a most useful basis on which to start the introduction of systematic training and this scheme can, of course, be adapted to meet individual requirements.

The second type of training is known as skills analysis. This involves the analysis of each job into its component operations and skills. Each trainee learns the job which he or she is to do in small simple parts, and is taken to a higher level of maintained efficiency in each part than would normally be expected of a trainee before being placed on the production line. This type of training goes under various names (*eg* skills analysis, analytical skills, advanced analytical method training) and most management consultants provide assistance in installing it; only basic principles are described here, and the degree of analysis will depend on the complexity and continuity of your operations. It is probable that you will require advice in installing skills analysis training, to ensure that you analyse all the component parts of a job, that the training exercises relate correctly to the component parts, and that your targets for each trainee are reasonable and at the same time high enough to achieve the desired level of efficiency in the minimum time.

It is advisable to keep your trainees separate from the actual production floor, but not entirely removed from it. This can perhaps best be achieved by three-quarter height partitions in one corner of your factory. If the training section is too isolated (*ie* in a separate building) this only emphasises the transition that has to be made when training is completed; if, on the other hand, it is not separated in any way, both the trainer and the trainee may find it difficult to concentrate. Again, the arrangements you make will depend on your particular needs.

The cost and financial benefits of training

Training costs will vary according to circumstances. A full time training officer may be required if the size of the operation justifies this, in other cases the person responsible may have other duties in addition to those specifically concerned with training; smaller firms would be well advised to consider sharing the services of a training officer by means of a group training scheme which will reduce the cost to individual firms.

The cost of a training officer is, however, a relatively small part of the total cost, the bulk is in the subsidies you pay to trainees, and here the cost to you arises from the type of training you adopt. An endeavour to demonstrate the significance of this is made in the following comparisons.

The traditional training method normally accepts 12 weeks as the period to build up to the basic minimum standard, while a planned training scheme may be expected to produce this performance in not more than 6 weeks. The build-up of production is gradual and it is reasonable to assume that, allowing for this, flat rate payments, *ie* wages paid without corresponding production, would be 50 per cent of total earnings during these periods.

Taking a starting rate for school leavers at £5 10 0 the comparison shown in Table 4 results.

Table 4

Traditional training		
Flat rate payment 50% of 12 weeks at £5 10 0	=	£33
Unrecovered overheads at say 100%	=	£33
		£66
Planned training		
Flat rate payment 50% of 6 weeks at £5 10 0	=	£16 10 0
Unrecovered overheads at say 100%	=	£16 10 0
Total per trainee		£33 0 0
Saving per trainee		£33

The advantage of a planned scheme only begins here, however, as the higher rate of progress of the systematically trained operator continues after basic minimum ratings have been achieved. On page 14 it is shown that one firm has actually achieved a 90 per cent performance in 16 weeks under a planned scheme against 45 weeks before adopting that scheme. A 90 per cent performance on a basic £5 10 0 per week is equivalent to earnings of £8 5 0.

Assuming that the build-up from £5 10 0 is progressive and that 50 per cent only of the benefit accrues during the period of build-up, *ie* from 12 to 45 weeks, the total savings can be calculated as shown in Table 5.

A firm recruiting 100 trainees a year, and there are many such, will save around £9,500 per annum. To this must be added the profit on the increased sales which result, bringing the total improvement in direct profitability to well over £10,000 per annum. The cost of a training officer and instructress is deductible from this figure but could be in the region of £2,500, in fact one large firm has calculated that for every £1 invested in their planned training scheme they have had a return of £4·94. To this must also be added the savings which will arise from a reduction in labour turnover as described on page 14.

Training and retraining older women

Although the majority of trainees will be school leavers, we have referred to the need to look for other sources of recruitment. Many clothing firms have decided it is not worth taking on older women (*ie* over 30) because they are slow to learn. This is not necessarily true, however, and some firms find that older women can add a stability to the labour force. This only reinforces the need for training. The concern which an older woman may feel for taking on a new and complex skill is greatly reduced if the job is broken down into small sections. If you intend to recruit and train older women, remember they are not school girls and they must not be treated like school girls. The older woman requires different treatment to her younger colleague, but the same basic principles apply in both cases. An older woman will start at a higher rate of earnings, and this makes it particularly important to ensure that she is earning her wages as rapidly as possible, by giving her thorough training.

If you have, or intend to set up, a training section, you may find that you cannot fully use the facilities you have provided in training new recruits. For example, it may be that the number of recruits does not call for the facilities of

Table 5

Traditional

Period of build-up 45 less 12 weeks	=	33 weeks
Difference in earnings £8 5 0 less £5 10 0	=	£2 15 0 per week
50% of increase accrued over 33 weeks	=	£1 7 6 × 33
	=	£45 7 6
say 100% overheads	=	£45 7 6
		£90 15 0

This represents the cost of achieving a 90 rating.

Planned

Period of build-up 16 less 6 weeks	=	10 weeks
Difference in earnings £8 5 0 less £5 10 0	=	£2 15 0 per week
50% of increase accrued over 10 weeks	=	£1 7 6 × 10
	=	£13 15 0
say 100% overheads	=	£13 15 0
		£27 10 0

As this also represents the cost of achieving a 90 rating, it will be seen that the saving on the planned over the traditional method amounts to £63 5 0 per operator.

Total savings are thus:

To basic minimum level	£33 0 0
To 90 rating level	£63 5 0
	£96 5 0

the training section to be fully used throughout the year on the basic training of beginners. This problem will be greatly aggravated if a compulsory single school leaving date is introduced. This can provide the opportunity for retraining experienced operators to higher performance standards in their own jobs, or to acquire alternative skills. The same methods as are used for training new entrants can be used, so that skills are developed to a higher degree, bad habits corrected, and quality defects cured. If a retraining programme is to be embarked upon it is important that supervisors should check each operator's output regularly, and so identify those who need retraining as soon as possible.

One firm which is successfully retraining its labour force as vacancies occur in the training section calculates the average increase in productivity per re-trainee as 22 per cent. The programme of continued improvement leads naturally to a further improved recovery of fixed overheads, and ensures that you are using your training investment to full capacity.

6 Transition

When you are satisfied that your trainee has reached an acceptable performance standard, you will naturally want to put her on full production work as soon as possible, even though she will probably have been producing actual garments for much of her training period. The more effective your training has been, the more important it is to see that the benefits are not lost when transferring ex-trainees to the factory floor. The operator will have achieved a familiarity with her surroundings and a rhythm of work which can easily be disrupted by transfer, causing a temporary decline in performance. Many leave a job soon after transfer, often because they have been inadequately trained but often because the arrangements for transition have been inadequate. This comes back to the need to gear training to production needs and not to see it in isolation. If the production supervisor appreciates the difficulties experienced by the ex-trainee in transition, she will be prepared to take action to minimise them. Many larger clothing firms have assigned a training supervisor solely to 'shepherd' ex-trainees in their first month or two on full production. They have found that this system has been of great help in reducing to a minimum the risks of a fall-off in performance (and therefore earnings) at this crucial point.

7 Supervisors

This booklet is about the early stages of a new employee's 'life', and it would not be complete without a brief section on supervision. For the success of the principles described will depend largely on the supervisor, who is in direct contact with the new recruit. The management can lay down the policy to be adopted, but unless the supervisor is capable of implementing it, it will be largely nullified. For this reason the quality of supervision is vitally important.

Selection of supervisors

The normal supervisory employee ratio is not more than 1:20 for production and 1:8 for training. This indicates roughly what your supervisory needs should be. Most firms select their supervisors from the shopfloor, and frequently choose the best machinists. This is often a serious error. A girl may be a good machinist, but this is no indication that she has the qualities necessary for effective supervision. Knowing the job of those under her control is an important part of her duties but her overall task is to organise a group of people to work together effectively and efficiently. The following list of desirable qualities in a supervisor is a guide to selection:

Personality—ability to inspire confidence and get on with others

Leadership—by persuasion not aggression

Technical knowledge

Patience

Helpfulness

As mentioned under 'Selection', intelligence tests have been found particularly useful in selecting supervisors. At least one firm has recruited some of its supervisors direct from technical colleges, and this has given a successful balance between the theoretical and the practical. It is strongly recommended that someone of senior level (the managing director or the production manager) should be *directly* involved in the selection of every supervisor, so important a role does the supervisor play.

The age of a supervisor is relatively unimportant although many firms feel it is essential to have an older woman controlling a group of girls. This can have an adverse effect by creating an artificial gap between the ages, and more and more clothing firms are finding that young women of 18–20 make the best supervisors for groups of that age.

It is important that new supervisors should receive some training in the techniques of supervision. According to the clothing industry *Survey on Training Needs*, there was very little evidence of any supervisory training activity within the industry. Few firms will be in a position to run their own supervisory training

courses, but there are a number of general supervisory courses available, a selection of which is given in Appendix G.

Production supervisor

No supervisor can do her job effectively unless she knows exactly what it is. It is therefore important that the supervisory role should be clearly defined; for the success of any selection and training can be undone by bad supervision in production. It is worth re-examining your supervisor's job in the light of the following list of duties and responsibilities:

(i) *Production* The supervisor should ensure that a regular work flow is maintained in order to meet production targets. Control of the use of materials and of wastage is essential, and any signs of a fall in output by individuals should be checked (see 'Retraining'). Supervisors should take a personal interest in each girl's output performance.

(ii) *Quality* A supervisor should be responsible for ensuring that all faults are detected and corrected as early as possible, so that your firm's quality standards are maintained.

(iii) *Working methods* A supervisor should ensure that all the girls in her team are using the correct methods and the correct work aids and attachments. (Training will of course help here.)

(iv) *Housekeeping* The supervisor is responsible for the cleanliness and general appearances of her section in the factory—cleanliness generally means efficiency.

(v) *Leadership and human relations* Every supervisor should know everyone in her team as an individual. Problems should be dealt with as quickly as possible. The effectiveness of a production supervisor depends largely on how she deals with others, and good leadership means a well run, efficient and happy section.

(vi) *Work study* A supervisor should have a sufficient knowledge of work study in order to plan the work in the section in the most efficient and productive way, and to challenge work standards set by others which may sometimes be incorrect.

(vii) *Continued training* A supervisor must be familiar with the aims and methods of the training supervisors so that she can carry on with stamina training and develop the ex-trainee on known lines.

Training supervisor

If you decide to appoint one or more supervisors to take charge of your training, you will probably select one of your production supervisors. A training supervisor requires all the qualities of a production supervisor, but in addition, she needs to receive instruction in the nature of skills, job analysis, programme and instruction techniques. These can best be acquired on one of the courses listed in Appendix G.

8 Conclusions

The principles discussed in this booklet are irrefutable even though they are not yet generally accepted throughout the industry. Their success in the clothing firms where they have been applied is an indication of their importance, but they will only succeed in your firm if you believe in them and are prepared to take steps to implement them. In your own interest, we suggest you ask yourself the following questions:

Q *Am I attracting the right type of recruit?*

How can I improve my recruiting methods?

A Read Section 2 ('Recruitment')

Q *Why do I need to select when I can't get enough people anyway?*

A Read Section 3 ('Why select?')

Q *How can I apply a simple form of selection at a low cost?*

A Read Section 3, and Appendices A, B and D

Q *What advantages will systematic training give me over my present method?*

A See Section 5 ('Why train?')

Q *How do I set about improving my training methods?*

A Read Section 5 ('Training')

Q *When (in terms of initial cost subsequent productivity and labour retention) were my training methods and results last reviewed?*

A Only you can answer this question, but we suggest an annual evaluation would be well worth while

Appendix A

Sample Application Form

(*To be completed in applicant's own handwriting*)

Position applied for_____ Location_____

Name (in full)_____

Address .....

Date of birth.....

Name of parent or guardian .....

Where employed .....

School attended .....

Date of leaving..... Class reached .....

Evening classes attended.....

Is your health good? .....

If not give details.....

Is your eyesight good?..... Are you colour blind? .....

If you wear glasses state when and what for.....

Names of any previous employers.....

What was your job?.....

How long employed?.....

Reason for leaving .....

Name of any relative or friend employed by this firm.....

.....

Any other information_____

Signature..... Date.....

Appendix B

Interview plan

This plan should be used as a guide only to conducting an interview. The questions should not be posed in a mechanical, repetitive manner but should be used to obtain the type of information useful to record. The information sought from a school leaver will be different from that required from a married woman with experience of a number of jobs. The interviewer should use his judgement as to which questions are asked.

It is important to record the answers to relevant questions. These will be useful in distinguishing individual applicants after a series of interviews and in making the decision to offer employment.

Position applied for_____ Date of interview _____

Name_____ Date of birth _____

Address_____

How long have you lived at this address?

Previous address

Why did you apply for this position?

Do you know anyone in this company?

If you were engaged how would you get to work and how long would it take?

Work history

Present job

from_____ to_____

Firm_____ Address_____

How did you get this job?

Nature of work at start

Has your work changed?

What are your earnings?

What are your present duties and responsibilities?

Who is your superior?

How do you get along with him?

What do you like about the position?

What do you dislike about it?

How much time have you lost from work?

Why are you leaving?

How much notice will you have to give?

Other positions

Company	Nature of work	Dates	Wages	Reasons for leaving

Experience particularly applicable to this job

In which position have you been most successful?

Which did you enjoy most? Why?

Which did you enjoy least? Why?

Have you been unemployed at any time during the last 5 years?

How long? Did you support yourself?

Have you ever been involved in legal action?

Details.

Education history

Name of school or college

Dates (from.....to.....) Age at leaving

Grade at leaving

Examinations taken

Examinations passed

What activities did you join?

Did you hold any office?

Which subjects did you like best?

Any further education or night school classes since leaving

Any part time holiday jobs

What did you think of your teacher?

Family background

Are your mother and father living?

Father's age now or at death

Mother's age now or at death

Do you live with your parents/in lodgings/own home?

Who brought you up?

What is your father's occupation?

Details of brothers and sisters

What do your parents and family think about this job?

Domestic and social background

Single/Engaged/Married/Separated/Divorced/Widowed

Date of marriage Children Ages

Other dependants

What does your husband think of you working?

What are your spare time activities?

What sort of people do you dislike?

Have you had any serious illness or operations?

Are you a disabled person?

When did you last see your doctor?

Would you accept a company medical examination?

When did you last have your eyes tested?

Result

How much time have you lost from work through illness during the last year?

Interviewer's overall impression

Results of aptitude tests

Final recommendations

GOOD/SUITABLE/DOUBTFUL/UNSUITABLE

DOUBTFUL OR UNSUITABLE because: School record/Physical make-up/Intelligence/ Aptitude/Interests/Disposition/Circumstances

Final Action

Appendix C

Organisations offering courses on interviewing

The National Institute of Industrial Psychology
14 Welbeck Street, London W1

The Industrial Society
48 Bryanston Square, London W1

Institute of Personnel Management
5 Winsley Street, Oxford Circus, London W1

Appendix D

Description of aptitude tests

As stated in the text these tests should be used as a guide only to a candidate's ability. In order that the tests are carried out in comparable circumstances the equipment should be laid out and ready prior to the arrival of the candidate. The method should be clearly explained and a brief demonstration can be given. All of the tests should be timed and the results recorded on the interview form. No times are given in the examples below since the equipment will vary in size and shape and the circumstances of the test will not be comparable. Assessments of good and indifferent times must therefore be built up from experience.

Marbles test

Object
To indicate manual dexterity in picking up and placing motions.

Equipment
An open box divided into two compartments.
25 marbles.
Timing clock.

Method
The marbles are placed in one compartment and are to be transferred to the other compartment.

Test
(i) With right hand, pick up marbles one at a time from left hand compartment and place on base of right hand compartment.
(ii) With left hand, return the marbles, one at a time, to left hand compartment.

Pin board test

Object
To indicate ability to do fine work with the fingers rapidly and neatly.

Equipment
A pin board with 64 holes set in eight rows of eight holes each.
192 pins in a box.
Timing clock.

Method
The pins, in batches of three, are to be placed in the holes.

Tests
(i) With the pin board in front of her and the box of pins on the right the

candidate must fill as many holes as possible with groups of three pins in one and a half minutes. Any dropped pins must be replaced in the box.
(ii) With the pin box now on the left hand side and using the left hand for picking up, the test is repeated.

Form board test

Object

To provide some measurement of general intelligence and a sense of spatial relations. It gives some indication of how the applicant would approach a practical task; *eg* the build up of a bra top, gathering, lengths of darts etc.

Equipment

Form board A. This is a board on which 20 outline shapes, moon, crosses, *etc* are marked. There are pieces of cloth cut to fit these shapes together with two or three catch pieces.
Form board B. Identical to board A but the pieces of cloth have been cut into two parts.
Timing clock.

Method

The pieces of cut out cloth are to be placed accurately on to the marked outlines.

Test

(i) With form board A and using one hand only the candidate must place the pieces of cloth on the outlines and discard the catch pieces.
(ii) With form board B and using two hands the candidate repeats the process, joining the divided pieces.

Appendix E

A selection of courses for training officers

Area 1 Scotland
Napier College of Science and Technology, Colinton Road, Edinburgh, 10
University of Strathclyde, George Street, Glasgow, C 2

Area 2 Northern England and Wales
Birkenhead Technical College, Borough Road, Birkenhead
Blackburn College of Technology, Blakey Moor, Blackburn
Huddersfield College of Education, Holly Bank Road, Lindley, Huddersfield
John Dalton College of Technology, Chester Street, Manchester 1
Kingston-upon-Hull College of Commerce, Brunswick Avenue, Kingston-upon-Hull
Leeds College of Commerce, Calverley Street, Leeds 1
Liverpool College of Commerce, Tithebarn Street, Liverpool 2
Sheffield College of Technology, Pond Street, Sheffield 1
Sunderland Technical College, Sunderland
Wigan & District Mining and Technical College, Parson's Walk, Wigan

Area 3 Central Wales and the West Midlands
North Staffordshire College of Technology, College Road, Stoke-on-Trent

Area 4 Nottingham
Nottingham Regional College of Technology, Burton Street, Nottingham

Area 5 Lincolnshire, East Anglia and SE Midlands
Ipswich Civic College, Rope Walk, Ipswich

Area 6 Leicester
Leicester Regional College of Technology, The Newarke, Leicester
University of Leicester

Area 7 South Wales, Birmingham Conurbation, South-West Midlands
Wolverhampton College of Technology, St John's Square, Wolverhampton
University of Birmingham. (Specialist skills analysis course)
Institute of Supervisory Management, King Edward House, New Street, Birmingham 2 (Short courses)

Area 8
College for Distributive Trades, 107 Charing Cross Road, London WC2
Hendon College of Technology, The Burroughs, Hendon, London NW4

Kingston-upon-Thames College of Technology, Penrhyn Road, Kingston-upon-Thames
The Polytechnic, 32-38 Wells Street, London W1
Portsmouth College of Technology, Royal Beach Hotel, Southsea
Slough College, William Street, Slough
University of Bath, Rockwell, Kings Weston Road, Bristol
Woolwich Polytechnic, Wellington Street, London SE18
Urwick Management Centre, Baylis House, Stoke Poges Lane, Slough
The Industrial Society, Robert Hyde House, 48 Bryanston Square, London W1
(Short course.)

Appendix F

Some colleges offering machinist training courses

London
College of Fashion and Clothing Technology, 20 John Princes Street, London W1
and 100 Curtain Road, London EC2

Manchester
The Hollings College for the Food and Fashion Industries, Old Hall Lane Manchester 14

Bristol
Soundwell Technical College, St Stephens Road, Soundwell, Bristol

Luton
Luton College of Technology, Luton, Bedfordshire

Birmingham
Birmingham College of Arts and Crafts, Soho Road, Handsworth, Birmingham 21

Glasgow
Stow College of Printing, Glasgow

Plymouth
Plymouth College of Housecraft

Portsmouth
Highbury Technical College, Dovercourt Road, Cosham, Portsmouth

Appendix G

A selection of supervisory training courses

Industrial Society,
48 Bryanston Square, London W1
Basic supervision for women—2 day course.
Senior supervisory course for women—5 day course.
Courses are held regularly in London and provincial centres.
Individual courses designed to suit the needs of particular firms can also be arranged at the firm's own premises.

Production Engineering Research Association,
Melton Mowbray, Leicestershire
One week courses organised by the Educational and Training Section

Institute of Supervisory Management,
22 Bore Street, Lichfield, Staffs
Weekend courses

Burton Manor College,
Burton in Wirrall, Neston, Cheshire
Residential courses

The Industrial Training Service,
53 Victoria Street, London SW1

College of Fashion & Clothing Technology,
20 John Princes Street, London W1
and at 100, Curtain Road, London EC2

Soundwell Technical College,
St Stephens Road, Soundwell, Bristol

Hosiery & Allied Trades Research Association (HATRA)
7 Gregory Boulevard, Nottingham

Department of Employment & Productivity
Through its Local, Regional & HQ offices the DEP offers the training within industry for Supervisors service. This provides a series of short courses to develop supervisory skills in instructing, leading, improving work methods and in preventing industrial accidents.
The courses can be conducted on firm's premises by officers of the department. Alternatively smaller organisations may send their supervisors to composite courses held on DEP premises.

Clothing EDC

Chairman	
R Appleby CBE	Chairman, Black & Decker Ltd
Members	
W E Aston	Chairman & managing director, Wearwell Overall Co Ltd
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